# Amendments to the Specification:

Since the original application does not include paragraph numbers, the page and line numbers will be referred to herein when identifying a paragraph that is to be replace or inserted and refer to the page and line numbers as reflected in the attached copy of the original specification.

On page 1, line 4: Replace paragraph with:

The present application is a continuation of <u>non-provisional application number</u> 09/777,336 filed on July 6, 1999, which is a continuation of U.S. Patent 6,219,649 issued on April 17, 2001, which claims priority to provisional patent number 60/116,785 filed on January 21, 1999.

On page 1, lines 12: Replace paragraph with:

This application is a continuation of Provisional Patent Application # 60/116,785 submitted January 21, 1999. By reference the following documents, submitted to the Sunnyvale Center for Innovation, Invention and Ideas (SCI<sup>3</sup>) under the US Patent and Trademark Office's Document Disclosure Program, are hereby included:

On page 2, line 2: Replace paragraph with:

Copending Patent Application Serial No. 09/070,130, filed on April 29, 1998 and issued on February 29, 2000 as Pat. No. 6,032,123 is incorporated by reference herein, which application and referred to as PRPA (Prior Relevant Patent). PRPA discloses and discusses several standard methods for allocating resources.

On page 7, line 22: Insert the following paragraph:

Numerous other advantages and features of the invention will become readily apparent from the following detailed description of the invention and the embodiments thereof, from the claims, and from the accompanying drawings.

Amdt. dated September 5, 2003 Preliminary Amendment

On page 9, line 34: Replace headlines with:

[["]] Theory of the Invention[["]] - Philosophy

#### **Philosophy**

On page 11, line 17: Replace the headline with:

<u>Theory of the Invention – [["]]Mathematical Framework[["]]</u>

On page 12, line 19: Replace paragraph with:

Figures 2, 3 $\underline{A}$ , 3 $\underline{B}$ , 3 $\underline{C}$  and 4A demonstrate some basic concepts that were developed as part of this invention: Figure 2 shows how individual-scenario optimizations can serve as good starting points for finding an overall optimal allocation and how clustering can facilitate optimization; Figures 3 $\underline{A}$ , 3 $\underline{B}$  and 3 $\underline{C}$  show[[s]] the operation of special line-searching techniques to find better allocations; and Figure 4A shows how GBSs are generated and used to evaluate  $a_I$  allocations.

On page 12, line 25: Replace paragraph with:

Figure 2 depicts a hypothetical example with four scenarios. The  $a_I$  allocations are shown collapsed into a single dimension on the horizontal axis; the vertical axis shows function f and z values. Curves 201, 202, 203, and 204 show f values as a function of  $a_I$  for the first, second, third, and fourth scenarios respectively. The optimal  $a_I$  values for the four scenarios are points 211, 212, 213, and 214. Given the four optimal points, they are clustered: points 211 and 212 into a cluster 221; points 213 and 214 into a cluster 231. (The clusters include the scenarios themselves.) The value of z across both the first and second scenarios is shown by curve [[230]] 231; stated differently, curve [[230]] 231 shows the probabilistically-weighted average value of curves 201 and 202. The value of z across the third and fourth scenarios by is shown by curve 241. For both clusters, the optimal individual-scenario allocations are good starting points for finding the optimal cluster allocations. Line-search techniques, to be explained shortly, are used to locate a point 232 as the optimal allocation for cluster 221. For cluster 231, however, the third scenario's optimal

allocation (point 213) is the best cluster allocation. Now, the iteration repeats: the two cluster allocations points 232 and 213 are clustered into a larger final cluster. The value of z across the four scenarios is shown by curve 251, and as analogous to using optimized-scenario allocations, the optimal allocations for the individual clusters serve as starting points for finding the overall optimal allocation, point 261.

On page 15, line 20: Replace the heading with:

[["]]Embodiment[[s"]]

On page 15, line 21: Add the following new paragraph:

While the invention is susceptible to embodiments in many different forms, there are shown in the drawings and will be described herein, in detail, the preferred embodiments of the present invention. It should be understood, however, that the present disclosure is to be considered an exemplification of the principles of the invention and is not intended to limit the spirit or scope of the invention and/or claims of the embodiments illustrated.

On page 32, line 14: Replace the paragraph with:

If there is only one cluster remaining, Step 115 is performed after Step 109. It entails implementing the first-stage resource allocations indicated in vector xAllocOpt.al of the last remaining zCluster. This vector, xAllocOpt.al, of the last remaining zCluster contains what is termed the Optimal Final Allocation. (After implementation and the subsequent actual realization of  $w_I$ , the complete process described here is repeated, with the second stage having become the first stage, the third stage having become the second, and so forth.)

On page 36, line 1: Replace the paragraph with:

Processing proceeds as previously described until there is one remaining *zCluster*, with its *xAllocOpt.a1* allocation (Optimal Final Allocation) that indicates the cash allocations that should be made in the first stage.

## On page 36, line 26: Replace the paragraph with:

Processing proceeds as previously described until there is one remaining *zCluster*, with its *xAllocOpt.al* allocation (Optimal Final Allocation) that indicates which FIs the investor should presently own. Differences with actual present ownership are resolved by buying and selling FIs.

## On page 37, line 27: Replace the paragraph with:

Processing proceeds as previously described until there is one remaining *zCluster*, with its *xAllocOpt.a1* allocation (Optimal Final Allocation) that specifies the FIs' quantities that should be owned to mimic the GP.

#### On page 52, line 17: Insert the following new paragraph:

From the foregoing and as mentioned above, it will be observed that numerous variations and modifications may be effected without departing from the spirit and scope of the novel concept of the invention. It is to be understood that no limitation with respect to the specific methods and apparatus illustrated herein is intended or should be inferred. It is, of course, intended to cover by the appended claims all such modifications as fall within the scope of the claims.